

MD 85 IS ASSUMED TO RUN
IN A NORTH-SOUTH DIRECTION

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A TRAFFIC SIGNAL SYSTEM ON MARYLAND ROUTE 85 IN HOWARD COUNTY. THE SYSTEM IS FROM CRESTWOOD BOULEVARD EAST TO THE WAL-MART ENTRANCE. THE MASTER CONTROLLER WILL BE INSTALLED IN THE EXISTING CABINET AT THE WAL-MART ENTRANCE AND HAS AN EXISTING PHONE DROP. ALL OTHER PHONE DROPS IN THIS SYSTEM SHALL BE ABANDONED. SAMPLING STATIONS WILL BE LOCATED AT THE FOLLOWING INTERSECTIONS:

- a.) CRESTWOOD BOULEVARD
- b.) I-270 SOUTHBOUND RAMPS (MD 85 EASTBOUND ONLY)
- c.) I-270 NORTHBOUND RAMPS (MD 85 WESTBOUND ONLY)
- d.) SPECTRUM DRIVE
- e.) GROVE ROAD

THE FOLLOWING INTERSECTIONS HAVE EXISTING INTERCONNECT AND SHOULD BE SYSTEM READY:

- a.) SPECTRUM DRIVE
- b.) ENTRANCE TO LOWES
- c.) GROVE ROAD

GENERAL NOTES

1. THE CONTRACTOR MUST VERIFY LOCATION OF ALL EXISTING UTILITIES AND EXISTING GEOMETRICS PRIOR TO ANY WORK.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

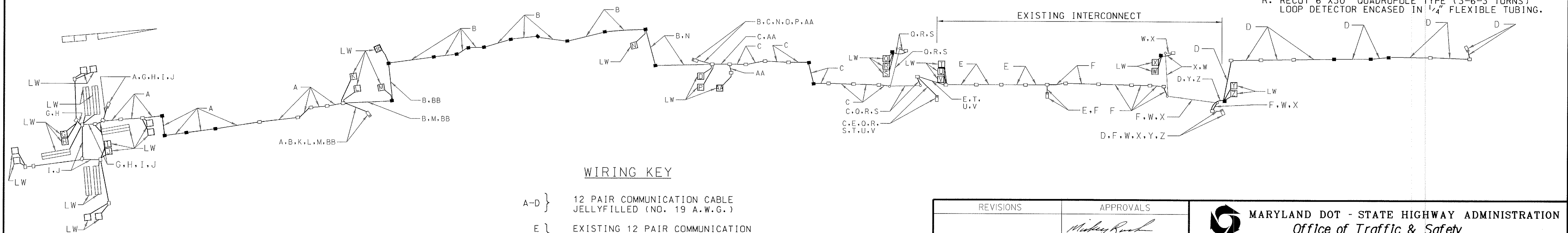
ITEM NO.	QUANTITY	DESCRIPTION
6001	64 S.F.	4 INCH CONCRETE SIDEWALK
8008	1 EACH	FURNISH AND INSTALL 3" WEATHERHEAD
8021	2250 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	125 L.F.	FURNISH AND INSTALL 1" ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8023	115 L.F.	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
8027	2700 L.F.	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8029	1300 L.F.	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED

EQUIPMENT LIST "B" - CONTINUED

B. EQUIPMENT TO BE FURNISHED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
8033	24 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8039	7000 L.F.	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
8040	6900 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	4700 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)

WIRING DIAGRAM



WIRING KEY

- A-D } 12 PAIR COMMUNICATION CABLE JELLYFILLED (NO. 19 A.W.G.)
- E } EXISTING 12 PAIR COMMUNICATION CABLE JELLYFILLED (NO. 19 A.W.G.)
- F } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- G-Z, AA, BB } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- LW } LOOP WIRE (NO. 14 A.W.G.)

UTILITY LEGEND

- G — G — GAS MAIN
- W — W — WATER MAIN
- S — S — SEWER MAIN
- E — E — ELECTRIC CABLES
- A — A — AERIAL CABLES
- T — T — TELEPHONE CABLES

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION AND INSTALLED BY SIGNAL SHOP

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EACH	MASTER CONTROLLER
9000	4 EACH	QUICK CONNECT
9000	6 EACH	4 CHANNEL LOOP DETECTOR AMPLIFIER
9000	4 EACH	TELEMETRY MODULE WITH HARNESS

CONSTRUCTION DETAILS

- A. FURNISH AND INSTALL 3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
- B. FURNISH AND INSTALL 3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
- C. FURNISH AND INSTALL HANDHOLE
- D. USE EXISTING HANDHOLE
- E. USE EXISTING CONDUIT
- F. USE EXISTING SPAN WIRE
- G. USE EXISTING STRAIN POLE AND INSTALL 3" WEATHERHEAD
- H. INSTALL CABLES. (1-4 CHANNEL LOOP DETECTOR AMPLIFIER INSTALLED BY SIGNAL SHOP)
- I. INSTALL CABLES. (2-4 CHANNEL LOOP DETECTOR AMPLIFIERS AND QUICK CONNECT INSTALLED BY SIGNAL SHOP)
- J. INSTALL CABLES. (MASTER CONTROLLER, 2 TELEMETRY PANELS, QUICK CONNECT AND PHONE DROP INSTALLED BY SIGNAL SHOP)
- K. INSTALL CABLE. (DISCONNECTION OF PHONE DROP AND INSTALLATION OF 1-4 CHANNEL LOOP DETECTOR AMPLIFIER, QUICK CONNECT AND TELEMETRY PANEL BY SIGNAL SHOP)
- L. INSTALL 1" GALVANIZED STEEL ELECTRICAL CONDUIT (DETECTOR WIRE SLEEVE)
- M. REPLACE SIDEWALK REMOVED BY BORE OPERATION
- N. INSTALL 6'X6' VEHICLE LOOP DETECTOR (4 TURNS) ENCASED IN 1/4" FLEXIBLE TUBING
- O. INSTALL 1" LIQUID TIGHT FLEXIBLE CONDUIT (DETECTOR WIRE SLEEVE)
- P. USE EXISTING STRAIN POLE
- Q. RECUT 6'X6' VEHICLE LOOP DETECTOR (4 TURNS) ENCASED IN 1/4" FLEXIBLE TUBING (NOTE: USE EXISTING TWO CONDUCTOR ALUMINUM SHIELDED CABLE).
- R. RECUT 6'X30' QUADRUPOLE TYPE (3-6-3 TURNS) LOOP DETECTOR ENCASED IN 1/4" FLEXIBLE TUBING.

RUMMEL, KLEPPER & KAHL, LLP
CONSULTING ENGINEERS

81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TEL: (410) 728-2900 FAX: (410) 383-3270

REVISIONS	APPROVALS
	<i>Michael R. Rummel</i> TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
	<i>David J. Kahl</i> ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	<i>John A. Rummel</i> CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	<i>John A. Rummel</i> DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 85 SIGNAL SYSTEM
FROM CRESTWOOD BOULEVARD TO WAL-MART ENTRANCE

DRAWN BY: SMH	F.A.P. NO. N/A	TS NO. 3501-1C1	SHEET NO. 1 OF 3
CHECKED BY: DLA	S.H.A. NO. FR379A51/B51		
SCALE: 1" = 50'	COUNTY: HOWARD	T.I.M.S. NO. N/A	
DATE: DECEMBER, 1999	LOG MILE: N/A		